

Amendments to the Specification:

1. Please replace the paragraph on page 2, lines 11-12 with the following amended paragraph:
Further objects and advantages of our my invention will become apparent from a consideration of the drawings and ensuing description.
2. Please replace the paragraph on page 3, lines 7-8 with the following amended paragraph:
Fig. 2 shows a 30 port redundant blocking compensated cyclic group (RBCCG) multistage switching network. Hashed areas represent slots for adding ~~ports~~ ports. (prior art)
3. Please replace the paragraph on page 4, lines 1-3 with the following amended paragraph:
Fig. 4Q shows a partially ~~upgrade~~ upgraded 40 port multistage switching network with a completed rewire of the interconnections between router rows R(1,*) and R(2,*) adding a connection between bottom port 1 of R(1,1) and top port 1 of R(2,0).
4. Please replace the paragraph on page 4, lines 5-6 with the following amended paragraph:
~~**Fig. 5B**~~ **Fig. 5A** shows a partially ~~upgrade~~ upgraded 40 port multistage switching network with a completed rewire of the interconnections between router rows R(0,*) and R(1,*) R(1,*).
5. Please replace the paragraph on page 4, lines 8-9 with the following amended paragraph:
~~**Fig. 5C**~~ **Fig. 5B** shows ~~upgrade~~ upgraded 40 port multistage switching network with a completed rewire of the interconnections between router rows R(2,*) and R(3,*) R(3,*).
6. Please replace the paragraph on page 6, lines 16-22 with the following amended paragraph:
The second component has two types of steps of which one is optional. The first type is to select a port that is misconnected in reference to the desired topology and to rewire it to its appropriate counterpart. The second type is optional and is the permutation of ports on the same router which results in a correct port being connected to the correct router. If such a permutation can be performed logically, traffic need not be disrupted. These two types of steps are repeated in any order until the desired topology is achieved. Since the ordering of such steps can be arbitrary, more structure can be added by breaking this component into three sub-components.

7. Please replace the paragraph on page 7, lines 13-14 with the following amended paragraph:

The final component is relatively simple. All external connections that are not already connection connected should be connected and placed into service.

8. Please replace the paragraph on page 9, line 30-page 10, line 11 with the following amended paragraph:

In the examples given below, the process of "diverting traffic" away from a port and "stop diverting traffic" from a port (also called "allow traffic to flow" to a port as stated in Fig. 9C.) should occur automatically whenever a connection is broken (disconnected) and when a connection is established, ~~respectively~~ respectively, if the routers are running standard routing protocols such as OSPF. However, the disconnection process may be streamlined by forcing new routing table information to be the routers prior to the connection being broken, thereby speeding the upgrade process and minimizing the impact on traffic. Likewise, a forced change to the routing table may expedite the full use of bandwidth after a new connection is established. In addition, to streamline the notation in the flowcharts, **Fig. 14** and **Fig. 15**, the act of disconnection also implies the diversion of traffic from its attached ports prior to the breaking of the ~~connection~~, connection. Also, the act of connecting two ports implies the allowing of new traffic flow through the two ports (or equivalently the "stopping of the diversion of traffic" from the two ports) after the attachment of a connection between the two ports.

9. Please replace the paragraph on page 19, line 24-30 with the following amended paragraph:

Again, rather than show a complete upgrade employing the relabel[[,]] for the entire network. ~~The network, the~~ upgrade and rewiring of interconnection network 11 of **Fig. 3A** (which is the same as interconnection networks 10, and 12 of **Fig. 3A**[[,]]) is shown in great detail here. The ~~detail~~ detailed algorithm is given in **Fig. 10** and flow chart **Fig. 15**. Though the relabeling algorithm shown here starts by scanning bottom ports and scanning them from left to right. Neither is necessary, top ports can be considered first and the order of scanning just needs to be systematic, a linear scan is the simplest.

10. Please replace the paragraph on page 25, line 1-4 with the following amended paragraph:

The process depicted in this application may be used also to reduce the fanout of routers in a network. Simply reverse the process shown here. In summary, the process would involve disconnecting external connections to ports to be removed; rewiring each interconnection network in the same manner as those described above; and finally removing the unwired ports.